



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 89

[Docket No.: FAA–2019–1100]

Policy Statement for the Reported Geometric Altitude of the Control Station of a Standard Remote Identification Unmanned Aircraft

AGENCY: Federal Aviation Administration (FAA), U.S. Department of Transportation (DOT).

ACTION: Statement of policy.

SUMMARY: This action clarifies FAA policy regarding the existing accuracy requirements for the reported geometric altitude of the control station of a standard remote identification unmanned aircraft. The FAA describes one acceptable way producers of unmanned aircraft can meet the minimum performance requirement for the accuracy of the control station’s reported geometric altitude. The FAA determined that this action is necessary to inform developers of means of compliance of one potential pathway to meet the performance requirement for the control station’s reported geometric altitude.

DATES: The effective date of this policy is [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For information on where to obtain copies of this statement of policy and other information related to this statement, see “Additional Information” in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Paul Siegmund, Policy and Innovation Division, Federal Aviation Administration, 800 Independence Ave SW, Washington, DC, 20591; telephone 1–844–FLY–MY–UA (1–844–359–6981); email: UAShelp@faa.gov.

SUPPLEMENTARY INFORMATION:

I. Overview

A. Background

On January 15, 2021, the FAA published a final rule titled “Remote Identification of Unmanned Aircraft” (Remote ID final rule) with an original effective date of March 16, 2021.^{1,2} The Remote ID final rule requires the remote identification of unmanned aircraft in the airspace of the United States. Remote identification is the capability of an unmanned aircraft, in flight, to provide certain identification, location, and performance information that people on the ground and other airspace users can receive.

In addition to the operating requirements, the Remote ID final rule provides the design and production requirements for the production of remote identification unmanned aircraft or broadcast modules. These requirements describe the performance standards for remote identification without establishing a specific means or process for regulated entities to follow.³ A person designing or producing a standard remote identification unmanned aircraft or remote identification broadcast module must show that the unmanned aircraft or broadcast module meets the performance requirements of the rule by following an FAA-accepted means of compliance. A

¹ *Remote Identification of Unmanned Aircraft* final rule, 86 FR 4390 (Jan. 15, 2021).

² On March 10, 2021, the FAA published a correction to the Remote ID final rule in accordance with the memorandum titled Regulatory Freeze Pending Review (86 FR 7424, Jan 28, 2021), delaying the final rule’s effective date to April 21, 2021 (86 FR 13629).

³ A standard remote identification unmanned aircraft broadcasts identification, location, and performance information of the unmanned aircraft and control station. This unmanned aircraft broadcasts the remote identification message elements directly from the unmanned aircraft from takeoff to shutdown. A remote identification broadcast module broadcasts identification, location, and take-off information; the broadcast module may be a separate device that is attached to an unmanned aircraft, or a feature built into the aircraft. 86 FR 4391 (Jan. 15, 2021).

means of compliance submitted to the FAA for acceptance must show that an unmanned aircraft or broadcast module produced using it would meet the performance requirements of title 14 of the Code of Federal Regulations part 89 (14 CFR part 89). This policy statement only addresses the performance requirements and compliance path for the standard remote identification unmanned aircraft.

Part 89 requires the following 8 message elements to be broadcast from a standard remote identification unmanned aircraft: 1) unmanned aircraft unique identifier; 2) an indication of the control station's latitude and longitude; 3) an indication of the control station's altitude; 4) an indication of the unmanned aircraft's latitude and longitude; 5) an indication of the unmanned aircraft's altitude; 6) a time mark; 7) an indication of the emergency status of the unmanned aircraft system; and 8) velocity. Additionally, all standard remote identification unmanned aircraft must meet certain minimum requirements regarding the transmission of the message elements including the minimum performance requirements related to positional accuracy, geometric altitude accuracy, message latency, and message transmission rate. These minimum performance requirements for the message elements are design requirements; any specific test method for ensuring that the unmanned aircraft design meets this accuracy requirement will be reviewed and evaluated by the FAA as a part of the means of compliance acceptance process.

Part 89 establishes the accuracy requirement for the reported geometric altitude for the control station of a standard remote identification unmanned aircraft. Specifically, § 89.310(h)(2) requires that the reported geometric altitude of the control station must be accurate to within 15 feet of the true geometric altitude, with 95 percent probability. The Remote ID final rule did not specify how a means of compliance should address this requirement. In order to guide producers to develop standard remote identification unmanned aircraft that meet the FAA's standards, this policy statement informs developers of one potential means of compliance that would be acceptable to the FAA to demonstrate compliance with meeting the geometric altitude requirement. Persons developing a means of compliance for a standard remote identification

unmanned aircraft in accordance with 14 CFR part 89, subpart E, may incorporate the method described in this policy statement as part of their means of compliance. The FAA emphasizes, however, that other ways of demonstrating compliance with § 89.310(h)(2) may be acceptable.

B. Statement of Policy: Acceptable Method

This statement of policy describes one acceptable way, but not the only way, that the accuracy requirements for the reported geometric altitude of the control station of a standard remote identification unmanned aircraft can meet the minimum performance requirement in § 89.310(h)(2). The FAA is not requiring developers of means of compliance to include the specific method provided in this statement of policy.

A means of compliance that requires the unmanned aircraft system (UAS) control station position source to be a global navigation satellite system (GNSS) receiver utilizing Global Positioning System (GPS) and Wide Area Augmentation System (WAAS) satellite signals to determine the geometric altitude of the control station would be an acceptable method for a means of compliance to demonstrate that the unmanned aircraft built according to its specifications would meet the accuracy requirement in § 89.310(h)(2). The WAAS Performance Analysis report from the second quarter of 2021 shows that GNSS receivers utilizing GPS with a satellite-based augmentation system indicates a worst-site 95% vertical accuracy of 5 feet for the continental United States.⁴ This report demonstrates that GNSS receivers utilizing GPS/WAAS can achieve the necessary vertical position accuracy across the National Airspace System to meet the reported geometric altitude requirement of § 89.310(h)(2).

The FAA recognizes that UAS technology, which includes remote identification technology, is continually evolving and improving. Accordingly, the FAA expects that other methods may be available to meet this requirement other than the one mentioned in this policy statement, and nothing about this statement should preclude developers of means of compliance

⁴ <https://www.nstb.tc.faa.gov/DisplayArchive.htm>

from including other technological methods of meeting the vertical accuracy requirements for the reported geometric altitude of the control station. This statement of policy solely addresses one method of demonstrating compliance with § 89.310(h)(2); note that any means of compliance submitted to the FAA must also adequately address the other requirements in part 89, subparts D and E, in order to be accepted by the FAA.

II. Additional Information

A. Electronic Access and Filing

A copy of the Remote ID final rule as well as all background materials may be viewed online at <https://www.regulations.gov> using the docket number listed above. A copy of this statement of policy will also be placed in the docket for that rule. Electronic retrieval help and guidelines are available on the website. It is available 24 hours each day, 365 days each year. An electronic copy of this document may also be downloaded from the Office of the Federal Register's website at <https://www.FederalRegister.gov> and the Government Publishing Office's website at <https://www.GovInfo.gov>.

Copies may also be obtained by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW, Washington, DC 20591, or by calling (202) 267-9677. Requestors must identify the docket or amendment number of this rulemaking.

B. Integration of this Policy into FAA Orders and Publications

As appropriate, the FAA will incorporate this policy into applicable FAA Orders and publications, such as Advisory Circulars, as they are updated. The agency will also continually review this policy in the interest of aviation safety. The FAA reserves the right to update this policy if the agency collects or receives additional information.

This policy does not have the force and effect of law and is not meant to bind the public in any way, it is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

Issued in Washington, DC on or about November 16, 2021.

Michael C. Romanowski,
Aviation Safety
Director, Policy and Innovation,
Aircraft Certification Service.

[FR Doc. 2021-25366 Filed: 11/19/2021 8:45 am; Publication Date: 11/22/2021]